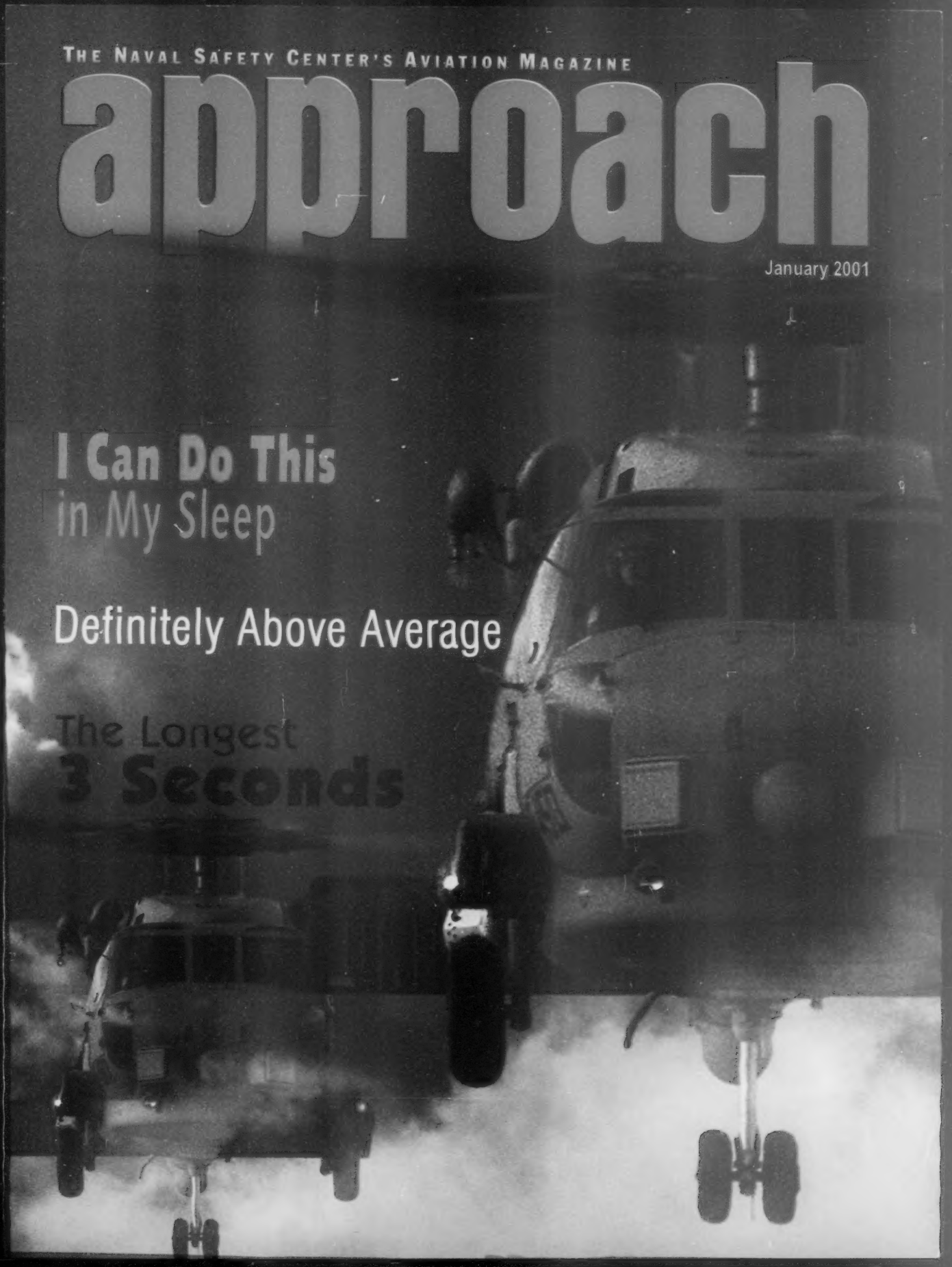
THE NAVAL SAFETY CENTER'S AVIATION MAGAZINE

approach

January 2001



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Definitely Above Average

The Longest 3 Seconds

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On the Cover SH-60Bs in flight. Photo-composite illustration by Allan Amen
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January Thanks

Thanks for helping with this issue...

Lt. Mike Connor, VFA-113 safety officer.

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Not a Big Deal—We [illegible] 600 ft.

Lt. Joe [illegible]

On the way to an airshow, an F-2[illegible] gets metal and experiments with aerobatics.

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Breaking out of the goo three seconds before touchdown.

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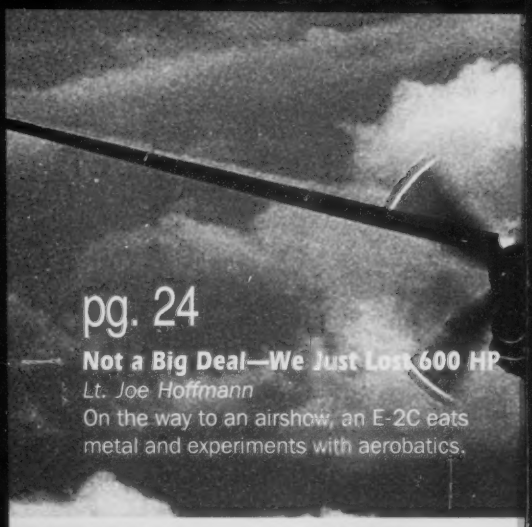

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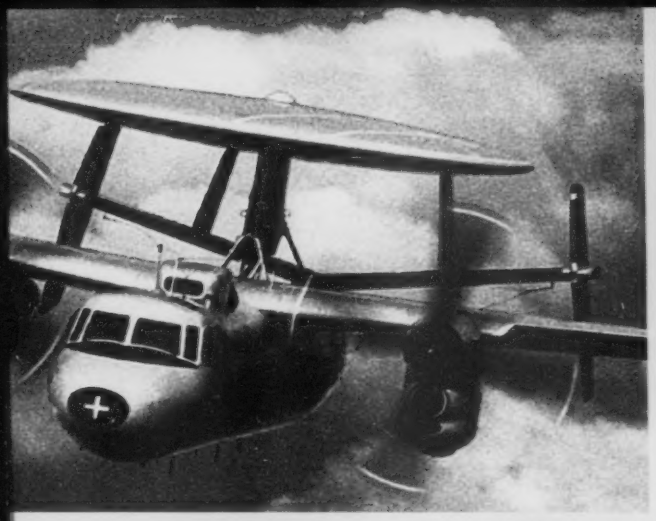

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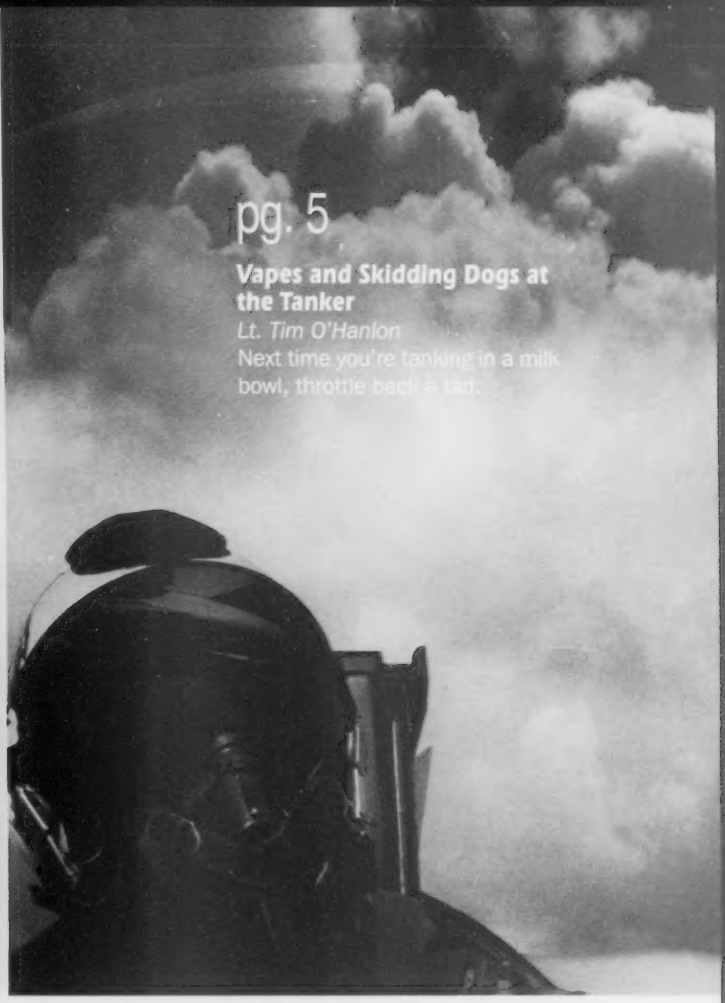
We Had the Checklist, We Just Didn't Do the Checklist

Lt. Gregg Gray

Maybe we need another checklist that says, "Do the other checklist."



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The Longest 3 Seconds

by Cdr. Tom Taylor

The ship was still in a turn, and I was constantly dipping my wings to stay close to centerline.

FA-18 photo by PH2(NAC) Jeffery Viano
Photo-composite illustration by Allan Amen

I was number two above a C-2 in the marshal stack, for a day, Case III recovery. From my vantage point at 7,000 feet, as far as I could see, there was a bed of cotton below me. The COD pushed two minutes ahead of me, and I dialed up his approach freq in my second radio. I wanted to hear where he broke out and get an idea of what the winds were, before I got to the ball call. No one was telling us what the weather was, which in retrospect meant, "I'm not sure I've ever seen it this bad." Adrenaline kicked in when I heard Paddles call, "Ninety-Nine, check landing lights on."

I approached four miles at 1,200 feet, dirty, with my landing lights on, still VFR above the clouds. CATCC reported, "Ship's in a port turn."

Shortly thereafter, the C-2 called "clara" at three-quarters of a mile.

The LSOs responded, "Keep it coming, you're on glideslope." Then there was an eternity of silence. I was counting potatoes, and when I got to 15, I was sure the COD pilot must have forgotten to call "ball." A couple potatoes later, I heard "wave off"—the C-2 hadn't broken out. I wondered what altitude he must have been at when he waved off. I then hunkered down and

got real serious, knowing I was going to have to fly the best instrument approach of my life.

I said a quick prayer to the ACLS gods, as I pushed over at three miles with good needles. The ship was still in a turn, searching for the wind, so I was having to work hard on lineup. My heart was racing as I leaned forward, probably looking as wide-eyed as Junior Seau just before a linebacker blitz. "Mode I's are for sissies," I thought, as I descended through 800 feet into the goo.

Constant corrections for an ever-changing lineup, along with trying to keep glideslope railed, had this old aviator tuckered out by three-quarters of a mile, and, of course, I was clara. Just then, I heard the calm, reassuring voice of CAG Paddles: "Keep it coming, you're on glide slope, on centerline." The LSOs were waving me, using the ACLS display on the LSO HUD because they couldn't see me. At 260 feet, I was still clara, but decided to continue after that pesky radar altimeter had finished distracting me. The ship was still in a turn, and I was constantly dipping my wings to stay close to centerline, working it right to get on azimuth, and then back left to get fuselage alignment, then back right for azimuth again. I was working as hard as I've ever worked at anything.

About 20 seconds after calling "clara," I got a "come left" call. The LSOs could finally see my landing lights, but I still couldn't see the ship and was rather anxious to view something out the window besides clouds. Three seconds prior to touchdown, I broke out and responded to two hard "right for lineup" calls that got me safely into the 3-wire.

"Wow, was that a rush," I thought, feeling intense relief at being aboard. I was hoping no one could hear my knees banging together. The captain asked, "Three Zero One, where did you break out?"

I replied, "Real late."

Later in the recovery, after one other trap and lots of waveoffs, we were almost bitten by one of the things that can go wrong with reverse waving, using the ACLS on the LSO HUD. One of the pilots continued below 260 feet without ACLS, using his ICLS for glideslope information. Paddles was inadvertently using ACLS information for the aircraft behind him and was giving him inappropriate glideslope and azimuth calls without having visual contact. That aircraft broke out 90 feet above the water, way below glideslope and so far right he executed an IFR waveoff up the starboard side.

Now, any good Monday-morning quarterback would ask, "So, you were blue water, right?" Well, no, we weren't. He then would slyly ask, "Was the weather at all the diverts as bad as at the ship?" Again, no. The weather at the divert was perfect, not a cloud in the sky. Well, then, the divert must have been too far away to safely get there. No, it was 45 or 50 miles away. Operational commitment during deployment, right? No, no commitment, just off the coast of CONUS during a work-up at-sea period.

Eventually CAG and the captain decided to send the rest of the airborne aircraft to the divert, waiting for better weather. We were in our last at-sea period before cruise. We knew we were good, and we knew we were ready. The night before, Paddles and the air wing had done a superb job getting aircraft aboard. The LSOs had talked aircraft down, with pilots breaking out eight to ten seconds prior to touchdown. One night later, we all thought we were unbeatable.

We go to instrument ground school every year and learn about flying approaches to airfields, but we don't talk much about doing it at the ship. For instance, if you hear a "paddles contact" call, will you continue below 260 feet without seeing the landing area? Will you continue if you hear a "keep it coming" but no "paddles contact"? That day, I went below mins with only a "keep it coming" call. The ACLS had been very reliable, so I was comfortable with the decision at the time, but in retrospect, it wasn't necessary, and it was too risky. After much reflection, I've decided to only press below 260 feet if I hear a "paddles contact" call, unless I'm about to flame out. In that case, I'll only continue with good ACLS and a "keep it coming." We came too close to tragedy on numerous occasions that day, because we were confident, overly aggressive, and had more guts than brains.

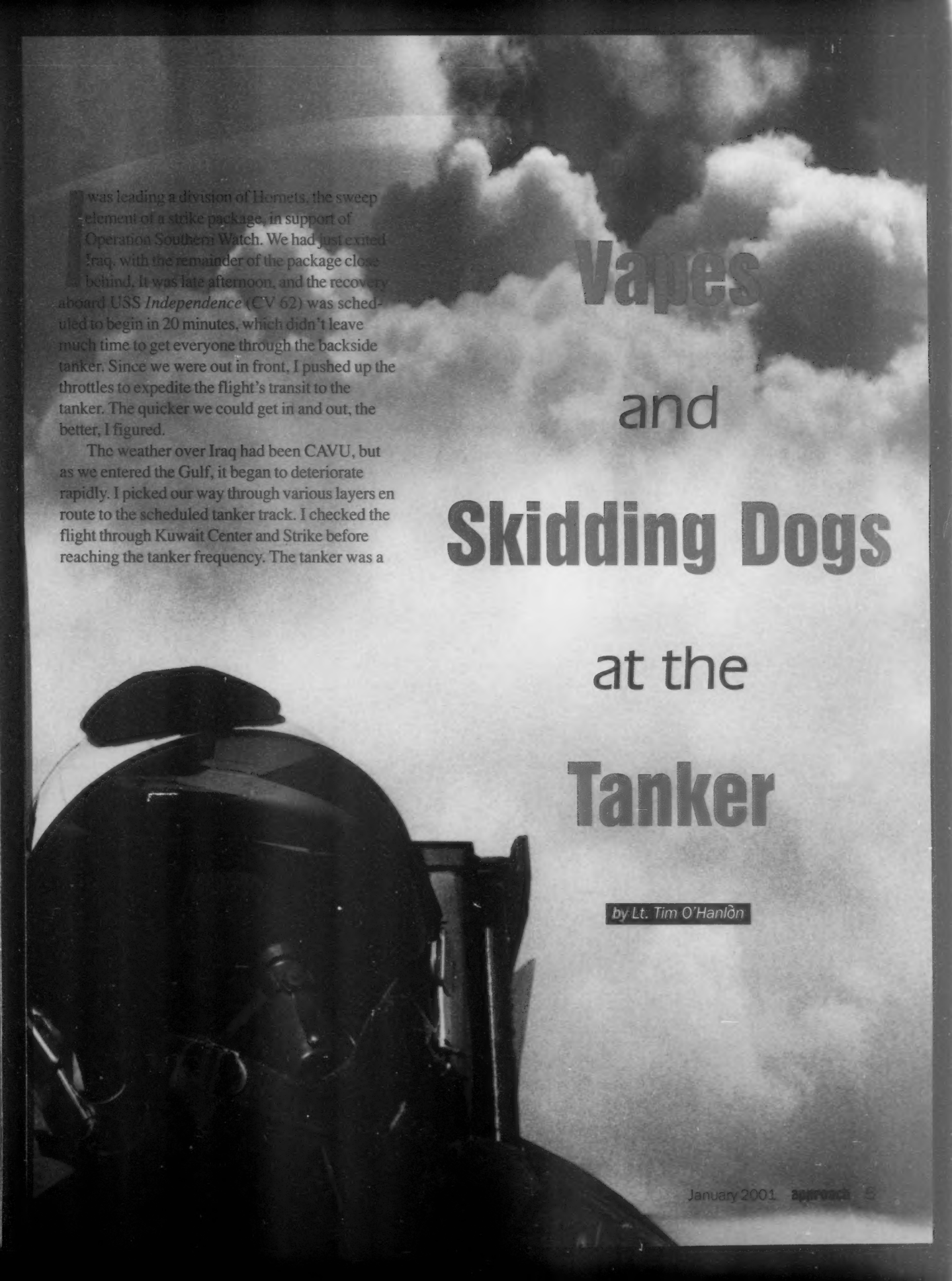
Cdr. Taylor is the commanding officer of VFA-113.

Vapes and Skidding Dogs at the Tanker

by Lt. Tim O'Hanlon

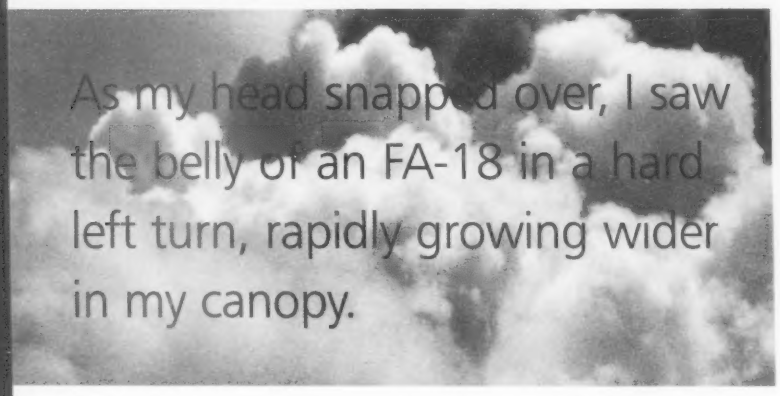
I was leading a division of Hornets, the sweep element of a strike package, in support of Operation Southern Watch. We had just exited Iraq, with the remainder of the package close behind. It was late afternoon, and the recovery aboard USS *Independence* (CV 62) was scheduled to begin in 20 minutes, which didn't leave much time to get everyone through the backside tanker. Since we were out in front, I pushed up the throttles to expedite the flight's transit to the tanker. The quicker we could get in and out, the better, I figured.

The weather over Iraq had been CAVU, but as we entered the Gulf, it began to deteriorate rapidly. I picked our way through various layers en route to the scheduled tanker track. I checked the flight through Kuwait Center and Strike before reaching the tanker frequency. The tanker was a



KC-10, and Strike had confirmed that it was on-station. However, the tanker was definitely not up the briefed primary or alternate tanker frequencies. I showed a single contact on the air-to-air radar, located directly over the tanker track, but no joy on the comms. I briefly switched back to Strike, because the tankers would normally monitor that frequency as well. They weren't answering there, either, although Strike repeated that the tanker had checked in earlier and reported on-station.

Fifteen miles from the tanker, it was clear that communications wouldn't be the only challenge. The entire area was one big milk bowl, with multiple layers, a visibility of three miles, and little to no definable horizon. I quickly crunched the fuel numbers one more time—we would be priority on the ball at best. With the marginal weather and an entire strike package low on fuel, the chance of things going from bad to worse was about as high as the chance that



the Air Force guy driving the tanker was wearing a neckerchief.

One last look at the radar showed no one between me and the tanker. I told Dash 3 to continue to search for any other contacts while I locked the tanker. At 10 miles, the tanker was still obscured by a milky layer. A normal rendezvous would have us fly to a point one mile aft and 1,000 feet below the tanker. From there, we would close the distance, stepping out to a 45-degree bearing line and climbing to the tanker's altitude. Given the conditions that day, however, a more conservative approach was required. Using the radar and making calls in the blind, I led the flight to a point three miles aft and 1,000 feet below the tanker. From there, we began a slow rendezvous. At two and a half miles, I could see the tanker. I was relieved that the flight would be able to cycle through the hoses, although it would definitely be a bit gamey.

Still no luck on the communications, but comm-out tanking was not unusual in the Gulf. Since we were a good five minutes in front of the rest of the strike package, and no one else had checked in, it looked like we would have a couple of extra minutes to get everyone through the basket. We had closed to one and a half miles, still directly aft of the tanker, when the chance of things going from bad to worse became reality.

Movement caught my eye to the left of the nose. As my head snapped over, I saw the belly of an FA-18 in a hard left turn, rapidly growing wider in my canopy. One of my wingmen emphatically called, "Left ten, left ten!"

I began my own call: "Unload, unload!" As I pushed the stick into the instrument panel and tensed up for the impact, I saw a second aircraft—a Prowler—in trail of the first. The Hornet passed 30 feet above my canopy, with a high left to right crossing rate, as he overshot the bearing line. He met all the required criteria for a defensive BFM reversal, and I momentarily envisioned selecting guns to riddle my "opponent" for the error of his ways. I noted the vapes that were draped along the leading edge extensions and wingtips as he passed overhead—telltale signs of a high-performance turn.

The Hornet quickly disappeared into a layer off to the right, and I directed my attention to the Prowler who passed behind and above the flight. He clearly could not hack the Hornet's hard turn, and was split well to the outside of the turn, doing his best impression of a nugget on his first WUOSX.* We all later agreed that paddles would have told him to take it up the right side.

I visually checked the status of my division. I counted four, including myself, and other than

producing a couple of new items for the ship's laundry, we had escaped unscathed. I throttled back and stepped out to three miles to let the guest players sort themselves out. At this point, the lead Hornet checked in on tanker frequency.

"Dragon Fifty-One, flight of two, joining." Still no reply from the tanker, but you can bet I had something to say.

"Dragon, this is Chippy, we are three miles in trail."

"You're at three miles? We're at one mile."

"Yeah, you passed right over us."

"Oh...well, I'm directly over the tanker now. We'll descend and join."

"Copy."

I slowly closed the flight to within visual range of the tanker, and this time executed a benign rendezvous to port observation. As I waited for the section to complete refueling, the tanker began answering the radio calls of the rest of the strike package as they checked in. Apparently, the tanker had selected the frequency of a different tanker track and had just caught the error. We eventually cycled the division through the tanker, in some of the most vertigo-inducing conditions I have ever experienced. There were repeated requests from various members of the strike package for the tanker to find a better altitude, but conditions were pretty much the same from 10,000 to 30,000 feet. Tanking complete, and happy to be alive, we picked our way back to the *Indy*, for a Case I recovery.

Our flight discussed this adventure at length during the debrief, as well as with the "guest" section. There were plenty of lessons. For starters, weather always complicates things and mandates a shift in our thinking to a more conservative mindset. Sometimes we let external factors, such as hurrying to get back to the ship for recovery, distract us from an otherwise simple decision to take things a bit slower. I know I was feeling pressure to expedite our tanking, and the other Hornet lead was certainly feeling the same. When we don't take a step back to examine the situation, we miss information that would have otherwise helped us make a better decision.

We have standard procedures for a reason. Every squadron has an SOP; every air wing has a TACPRO. Just about everything we do on a routine basis has a standardized approach. Tanking is probably one of the most dangerous missions we do, even when the weather is cooperating: as many as 20 aircraft, arriving from different directions, all striving to reach the same point. In the Hornet lead's case, his high-speed, high-G, non-standard rendezvous was dangerous, even in good weather. Arriving at a point above the tanker and descending to port observation jeopardizes the tanker and any other nearby aircraft. Following the procedures keeps everyone going the "same way, same day."

If we don't learn from our mistakes, we will repeat them. I'm proud of our community's willingness to stand up and confess when we do something wrong. That principle is the foundation of this magazine. Any aviator, from a nugget to a skipper, can stand up at an AOM, leave his rank and pride in the ready-room chair, and tell his story without fear of repercussions. Nothing has done more to foster an atmosphere of learning and safety than these confessions.

Lt. O'Hanlon is the SFARP and FRS Officer at VFC-12.

*WUOSX stands for "Wrapped Up Over Shooting Start," a standard LSO comment. A typical new pilot will experience several of these overshooting starts until he has some experience under his belt. The maneuver is affectionately known as the "dog skidding across the linoleum floor." The pilot is in a hard left turn, trying to roll out on his final approach, but because he started his turn too close to the ship, he is overshooting. No matter how hard he tries to stop, he just keeps on sliding past (like the dog attempting to turn a corner on the kitchen linoleum floor). Any time this occurs, anyone on the ship watching gets a good laugh, because they have been there as well. If an LSO comment is underlined, it means it was an exceptionally gross deviation; in other words, he really screwed up. In those rare instances where the overshoot is so gross that the aircraft couldn't get back to the left side without hitting the island, the LSO will tell the pilot to stop the approach, set up for another one, and take it up the right side of the island. You rarely see an aircraft fly up the right side of the island on the carrier.

I Can Do This in My Sleep

by Lt. Brian Nichols

I think I created one of the worst ways to fly formation. Well, maybe not created, but at least perfected. It was one morning at the end of our JTFX. We had been on a two-plane det, and fly-off time had rolled around. Once again, I found myself on a fly-off with little or no sleep, thanks to end-of-cruise paperwork late the night before. My squadron had a rule that the monthly readiness report and the end-of-cruise report had to be released from the ship before the fly-off. This typically involved about three hours of work, and unfortunately, we flew late the night before fly-off. Once the detachment's AZ completed the NALCOMIS download to give me the maintenance numbers required for the reports, it was nearly 0200. I finished the reports two and a half hours later, leaving about an hour and a half for sleep. Then I'd have to get back up to brief for the fly-off and route the messages through the chain of command to send them out.

I had promised myself repeatedly as a detachment operations officer that I wouldn't get into this situation. Normally I just would schedule someone else for the fly-off, because the night before fly-off is hectic. This time, however, I had said that I would do the fly-off, because the goal was to even out the fly-offs for each pilot, and we were at the end of our workup cycle. So after scrambling around trying to get my messages chopped and taking care of chores, I found myself in the air waiting for the second flight to launch so we could begin the trip home.

The launch of the second aircraft was then delayed by the ship because of an UNREP period. By the time the second aircraft launched, I had to land to refuel before the flight home, as I had already been flying nearly three hours. After topping off with fuel, we joined up on the other aircraft and headed home.

An hour into the formation part of the trip, I began to have a hard time staying awake. My copilot and I were swapping controls every 15 to 20 minutes, so we could both benefit from the formation training and to give each other a break (he'd been up until 0300 helping me with the reports). I found that I had more luck keeping my eyes open if I was at the controls, because I could concentrate on holding good formation on the other aircraft. The flight from Cherry Point to Jacksonville was usually quick, but thanks to the delayed launch of the second aircraft, this time it meant about six hours of flying.

So there we were, flying wing. I was at the controls, trying hard to keep my eyes open. My copilot knew how tired I was and kept looking over to check on me. It was getting harder and harder to stay awake, and I was just about to swap controls with him when I started dreaming.

I was standing in a crowd of people, talking, when a woman looked at me and said, "You shouldn't be asleep right now, you're flying." I thought to myself how strange it was that she would say that to me—it didn't fit into the dream at all. I quickly opened my eyes, and by some miracle, we were still in position on the other aircraft. I gave up the controls to my copilot and sat there feeling max stupid for the rest of the flight. I had neglected to use ORM when I should have, and because of my lack of sleep, I jeopardized the lives of nine people.

Crew rest is in the books for a reason. All too often, however, it takes a backseat to doing things like messages and LSO duties. If my lack of rest had killed us all, nobody would have cared that my monthly readiness report and my end-of-cruise report had been on time.

Lt. Nichols, now attached to NAS Brunswick, wrote this article while he was with HSL-44.

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Definitely Above Average

by Lt. Pete Gortner

How can disaster strike so quickly? In less than five seconds, you can go from situation normal to barely cheating death. Here's how it happened to me.

The event was a night section flight of Prowlers, flying out of NAF El Centro. It was an FRS syllabus event; I was taking up a Marine student pilot as wingman, while in the lead jet were an FRS instructor pilot (IP) and a squadron PXO, who was in the right seat finishing up his syllabus events. It is common procedure for the FRS to operate out of El Centro with front-seat aircrew only, so there were only four of us in the flight.

We briefed individual takeoffs, a rendezvous in the MOA, night parade and cruise formation, break-up and rendezvous section approaches, and emergencies. We were sharing the MOA with another section of Prowlers, but their MOA time ended right when ours started.

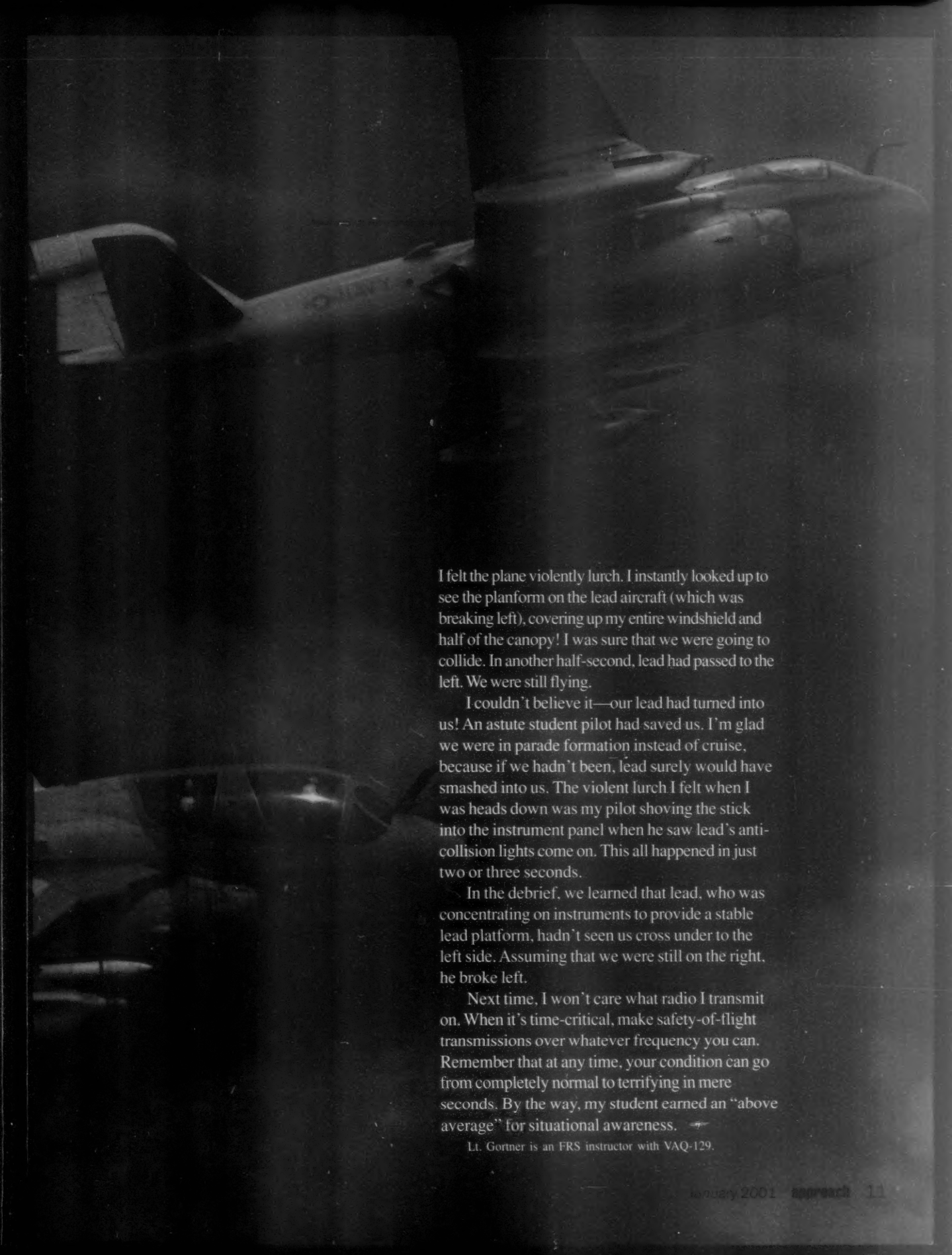
Our EA-6B took off three minutes after the lead jet. The other section was delayed and was supposed to take off sometime after us. So much for our MOA deconfliction.

After navigating to the MOA and accepting MARSA from LA Center, we started looking for our lead. Because I had three radios to use, I decided to monitor the tac freq, LA Center and our base freq, in case the other section arrived.

We quickly acquired a visual on our lead overhead the briefed rendezvous point. We joined up and crossed under to lead's right side. I let my pilot get comfortable with night parade from the right side, as lead took us through some mild turns. I then asked my pilot to take cruise. He showed me that he was very adept at night formation from the right side, so we crossed under to the left. Formation flying from the left is always much more challenging in the EA-6B, especially for fleet replacement pilots and at night.

We established a good cruise-formation position on the left side, and I was beginning to think it was time to move into left parade when lead called on our tac freq, "Lead's sixteen thousand, three hundred knots, state fifteen point eight."

Confused, I recognized this as a prefatory call for the break-up and rendezvous section of the flight. I figured I should tell lead that we wanted a few more minutes of form work. I'd been using all three radios and didn't want to make the nugget mistake of transmitting over the wrong radio, so I looked down at my radio control panel to make sure that I was selected to transmit on the proper radio. That's when



I felt the plane violently lurch. I instantly looked up to see the planform on the lead aircraft (which was breaking left), covering up my entire windshield and half of the canopy! I was sure that we were going to collide. In another half-second, lead had passed to the left. We were still flying.

I couldn't believe it—our lead had turned into us! An astute student pilot had saved us. I'm glad we were in parade formation instead of cruise, because if we hadn't been, lead surely would have smashed into us. The violent lurch I felt when I was heads down was my pilot shoving the stick into the instrument panel when he saw lead's anti-collision lights come on. This all happened in just two or three seconds.

In the debrief, we learned that lead, who was concentrating on instruments to provide a stable lead platform, hadn't seen us cross under to the left side. Assuming that we were still on the right, he broke left.

Next time, I won't care what radio I transmit on. When it's time-critical, make safety-of-flight transmissions over whatever frequency you can. Remember that at any time, your condition can go from completely normal to terrifying in mere seconds. By the way, my student earned an "above average" for situational awareness.

Lt. Gortner is an FRS instructor with VAQ-129.

Definitely Above Average

by Lt. Pete Gortner

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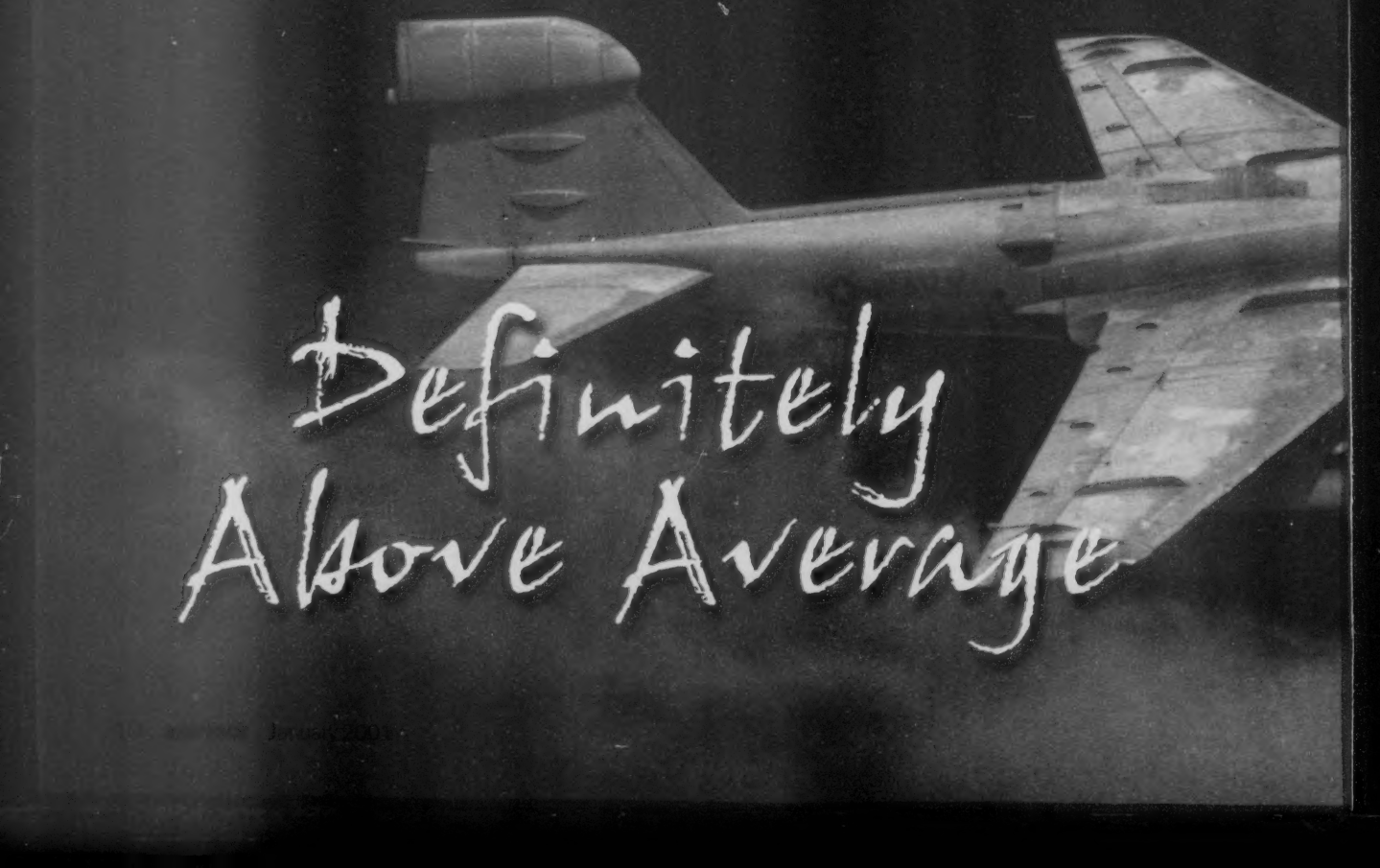

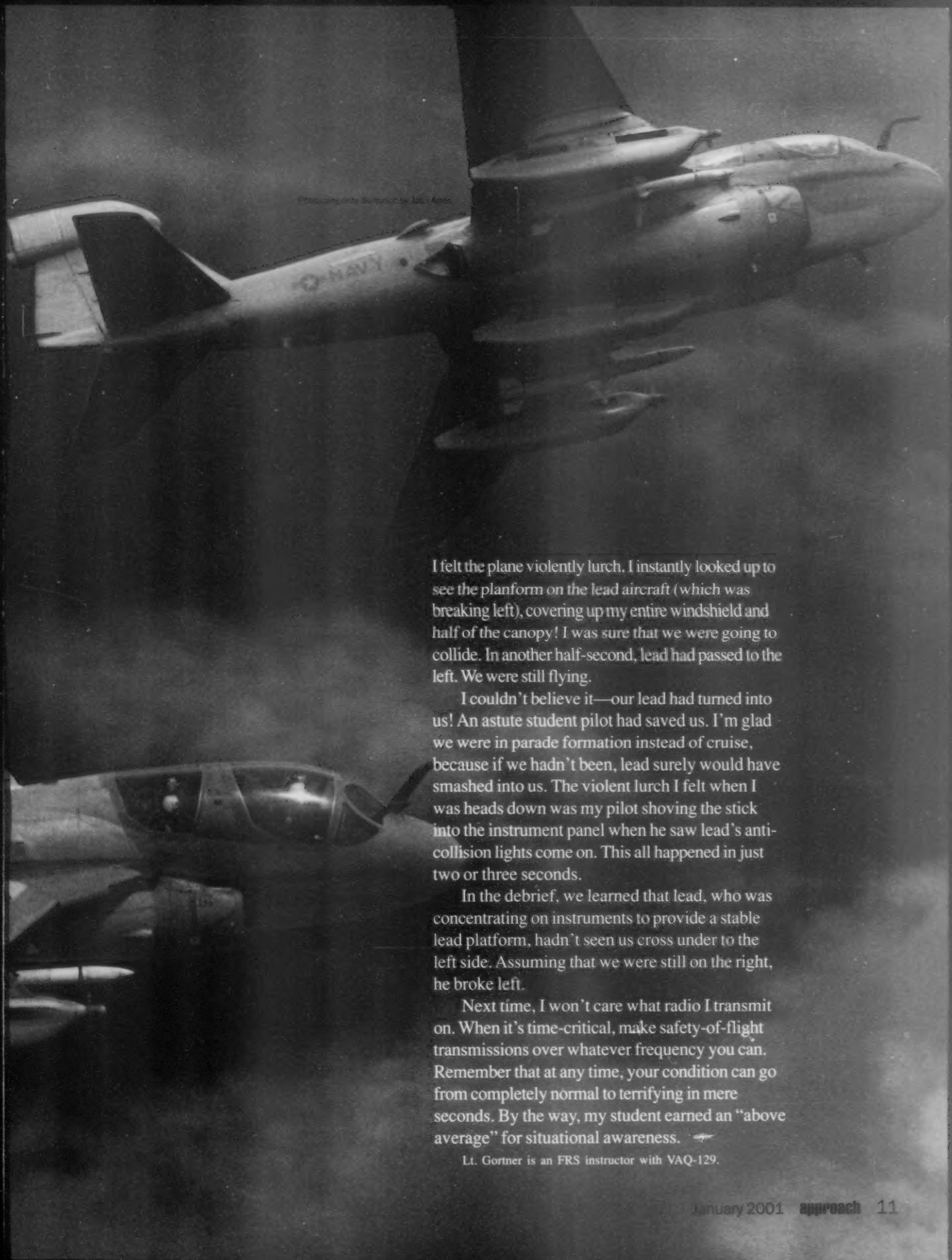

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Lt. Gortner is an FRS instructor with VAQ-129.

ORM Corner

Almost a Night Swim

by Ltjg. Dan Fillion

"I had my hand on the emergency window release," said the crewman during the debrief of what was supposed to be a routine training flight. "I'd never been so scared in my life."

Truth is, we were all scared at that particular moment during the flight. We figured that in four seconds, we would be in the water. But what could have been a Class A mishap turned out to be a valuable learning experience for me (a nugget in the squadron), as well as for an experienced HAC and a veteran crewman.

It happened during a joint task force exercise. Our ship was assigned to be the orange forces, which meant we didn't have to play by the rules. In order to deceive the blue at night, someone came up with a witty idea during a pre-staging brief. We decided to rig the ship with a different lighting scheme, making the ship appear to be a merchant instead of a warship. Everyone agreed this was a good idea, even the guys in the air department. However, the configuration of the lighting wasn't delineated during the brief.

I was copilot on the dusk patrol bag. Flight quarters went down after sunset, and the HAC and I were getting accustomed to the dark, doing pre-flight checks. It was supposed to be a starlit night, but a broken ceiling had moved in at 8,000 feet. It was one of those "dark" nights that I'd been hearing about. The flight-deck lighting was very dim, which allowed our night vision to develop without hindrance. By the time we were ready to lift, our cockpit lighting was low enough to be comfortable for the rest of the flight.

It was to be an EMCON launch. The LSO gave us green deck, and we lifted into a hover. "Gauges green, no caution lights, cleared to slide aft," I said to the HAC, who held steady at the HARS bar. The aircraft looked good, as we pedal-turned to the left 90 degrees and began to transition to forward flight. The HAC and I were both on the gauges as we came past the port-side superstructure of the ship. At that very moment, a blinding white light hit us both, coming from the port bridge wing. Our night vision went south—we were like two deer in headlights. I reached up to increase my instrument lights, when I heard the HAC over the ICS: "We're descending!"

The crewman, needless to say, was not happy and expressed his displeasure in so many words. My head snapped back to the radar altimeter as my left hand reached down to the collective. Power was already coming in. We'd gone from descent to climb fairly rapidly.

By the time we had climbed to 300 feet and called, "Ops normal," we all felt we had already

ORM Corner
is a bi-monthly department

Please send your questions, comments or recommendations to Mr. John Mahoney or to Capt. Denis M. Faherty, Director Operational Risk Management. Mr. Mahoney's address is: Code 08, Naval Safety Center, 375 A St., Norfolk, VA 23511-4399. (757) 444-3520, ext. 7310 (DSN-564). E-mail: Jmahoney@safetycenter.navy.mil

Write Capt. Faherty at OPNAV Code N-09K, 2000 Navy Pentagon, Rm. 5E-816, Wasgington DC 20350-2000. (703) 614-8430, (DSN-224). E-mail: faherty.denis@hq.navy.mil

flown an entire sortie. The vertigo from the ship's "deceptive lighting" had caused us to descend to about 50 feet on takeoff over the water. After a short exchange of colorful phrases, our anger gradually gave way to relief. During our recovery and on subsequent night flights, we made sure the ship secured those side lights.

For me, this event was a real-life wake up call. Never take your eyes off the gauges during takeoff. Don't let distractions keep you from verifying your climb. When you're four seconds away from a swim at night, crew coordination is critical.

Finally, taking off from the back of a ship at night is hard enough without vertigo-inducing surprises. One of the principles of ORM is that change is the mother of all risks. Change in the usual lighting configuration is a perfect example.

Ltjg. Fillion flies with HSL-47.

Photo-composite illustration by Allan Amen

We Had the Checklist, We Just Didn't Do the Checklist.

by Lt. Gregg Gray

I was on my first deployment as an H2P in the H-46D, flying SAR for the *Peleliu* ARG. This cruise gave me the chance to fly plenty of hours in support of Marine operations, as well as a few special-warfare exercises.

Our ARG left the Persian Gulf early to take position off East Timor as part of Operation Stabilize (an international peacekeeping effort). I was excited about getting to participate in a real-world operation, and the experience lived up to my expectations. I saw parts of the world I probably never would have seen, and the operations tempo was fun, fast-paced, and exciting. However, after a month on station and 65 straight days at sea, we all grew weary. The entire crew breathed a sigh of relief when we were finally released to continue eastward. Everybody eagerly anticipated four, well-deserved days of liberty in Hawaii.

During the week-and-a-half transit, the ship's decision to keep flight ops to the absolute minimum met no opposition. We needed all the down time we could get. I had taken full advantage of every "opportunity to excel" that came my way. I felt like a seasoned, well-trained H2P, smart enough to keep myself and my crew out of any precarious situation.

A chance to further enlarge my ego came the morning the ship was scheduled to pull into Pearl Harbor. Our det's two aircraft were dispatched to Hickam AFB to pick up two dozen newspaper and television journalists, who were going to ride in on the ship. Well, if you've ever operated in this area, you know that Hickam AFB is an extension of Honolulu International airport, in busy, Class B airspace.

Thinking we should stay as far ahead of the game as possible, we contacted Honolulu Approach while we were still on deck and established radar contact immediately after takeoff. We launched at sunrise as a two-aircraft loose form, and my situational awareness promptly began to slide. I had flown form on only a handful of occasions, so I was tenacious about keeping position on the lead aircraft. In doing so, I didn't listen to the radios very closely, and, for the most part, didn't bother with anything else. I assumed that I'd simply follow lead in for the landing. My HAC felt he needed to keep a good eye

on how close I got to lead; he also neglected the rest of his duties.

These facts became dramatically apparent as we came into a hover to land at the approach end of a busy runway. The crew chief yelled, "Landing checks!" over ICS. Both of us up front scrambled to complete the landing checks and get out of the way of an incoming airliner. Once on deck and clear of the runway, we gave ourselves a sanity check, muttering, "How did I let that happen?"

Lesson learned, right? Not quite. With passengers aboard and headed back to the ship, we did it again. As I touched down on the pitching and rolling deck with a 30-knot headwind, I realized instantly that we had once again forgotten to complete the landing checks! We quickly set the parking brakes, which is the only thing that kept us from rolling into the aircraft parked on the spot in front of us.

A long debrief exposed several contributors to our dual loss of situational awareness. First, just because we had worked solely in a shipboard environment for five months didn't mean we should do things any differently going ashore. Prior to each shipboard landing, we ensure the landing checklist is completed. We should have done the same thing for the two legs of our flight that morning.

Second, our minds may have been more on what we were going to do once we heard liberty call later that afternoon than what was going on in the aircraft. It was Christmas time, and we had been at sea for 80 days, so the sooner this flight was over, the sooner the ship could begin its transit into port.

Third, and maybe most importantly, every crew member should have a keen awareness of what is going on. We need to be able to count on each other. If you haven't heard the "landing checks completed" call, don't hesitate to ask whether that task has been taken care of. We depend on our crew members to keep us out of dangerous situations, and we depend on the system of checks and balances to ensure common tasks are completed.

Lt. Gray flies with HC-11.

Night Fright

by Lt. Frank Rhodes

Our squadron was just starting COMPTUEX during my nugget workup cycle. We'd finished TSTA a week earlier. After some great liberty in Canada, a day of flying, and more liberty in San Diego, I was refreshed and ready for two more weeks of cyclic ops.

Four days later, I was scheduled for my first night trap since the transit to San Diego. After an uneventful OCA mission as Dash 2, my flight lead and I returned to marshal and split up for the standard SOCAL penetration into a 1,000-foot-overcast, night, Case III approach.

The first part of the CV-1 went without a hitch. I was feeling a little behind the jet, because I had not flown much recently. This fact should have caused the hair on the back of my neck to stand up, but it didn't. I leveled off at angels 1.2. My radar altimeter was set to 450 feet, and I had needles (ACLS) selected in the HUD (only the needles). I had found that the combination of bullseye and needles cluttered the HUD too much. When I heard the controller say, "Four Zero Four, ACLS lock-on, call your needles" and I actually had needles in my HUD, I breathed a sigh of relief. Unfortunately, I didn't bother to cross-check the TACAN and didn't hear the controller call my lock on range as four miles. I was at seven miles.

I entered the marine layer between 1,500 and 1,000 feet. I focused on my needles and flew one of my best ACLS approaches. Nearing 500 feet, I scanned outside to where I expected the ship

should be. The sight picture was completely foreign to me. I saw two sets of lights. The first was a pair of red lights at about one mile, where I thought the ship should be. The latter was in a configuration I couldn't quite make out, two miles farther away. Neither of these lights looked anything like the carrier. It didn't occur to me to cross-check the TACAN. The radar altimeter went off at 450 feet, and the controller told me to call the ball. I answered back with a confused, "Clara."

Meanwhile, back in CATCC, a supervisor noticed two controllers had simultaneously told two different aircraft to call the ball. The supervisor heard "Two Zero Three, Hornet, ball" and "Four Zero Four, clara." It took the supervisor a couple seconds to realize that 404 was actually at one and a half miles, but when he did, he broadcast, "Four Zero Four, fly bullseye."

On the platform, the controlling LSO noticed a Hornet flying extremely right of centerline, seemingly shooting the approach to the plane guard. Not knowing what channel the pilot was monitoring, he quickly switched between the two frequencies transmitting an emphatic, "At a mile, you're low—climb!"

I was looking at a sight picture that was just plain bad. I went to military power a second before the controlling LSO and supervisor in CATCC made their calls. I selected ILS as soon as my velocity vector was above the horizon. It was the scariest fly-up, fly-left I could have imagined. CAG Paddles, who had taken over by this time, did an incredible job talking me back to glideslope and centerline. I settled down enough to trap on the 4-wire. With a lot of questions and shaking knees, I taxied out of the landing area.

I figure I had shallowed out my rate of descent at the ball call, still had negative VSI, and bottomed out around 350 feet.

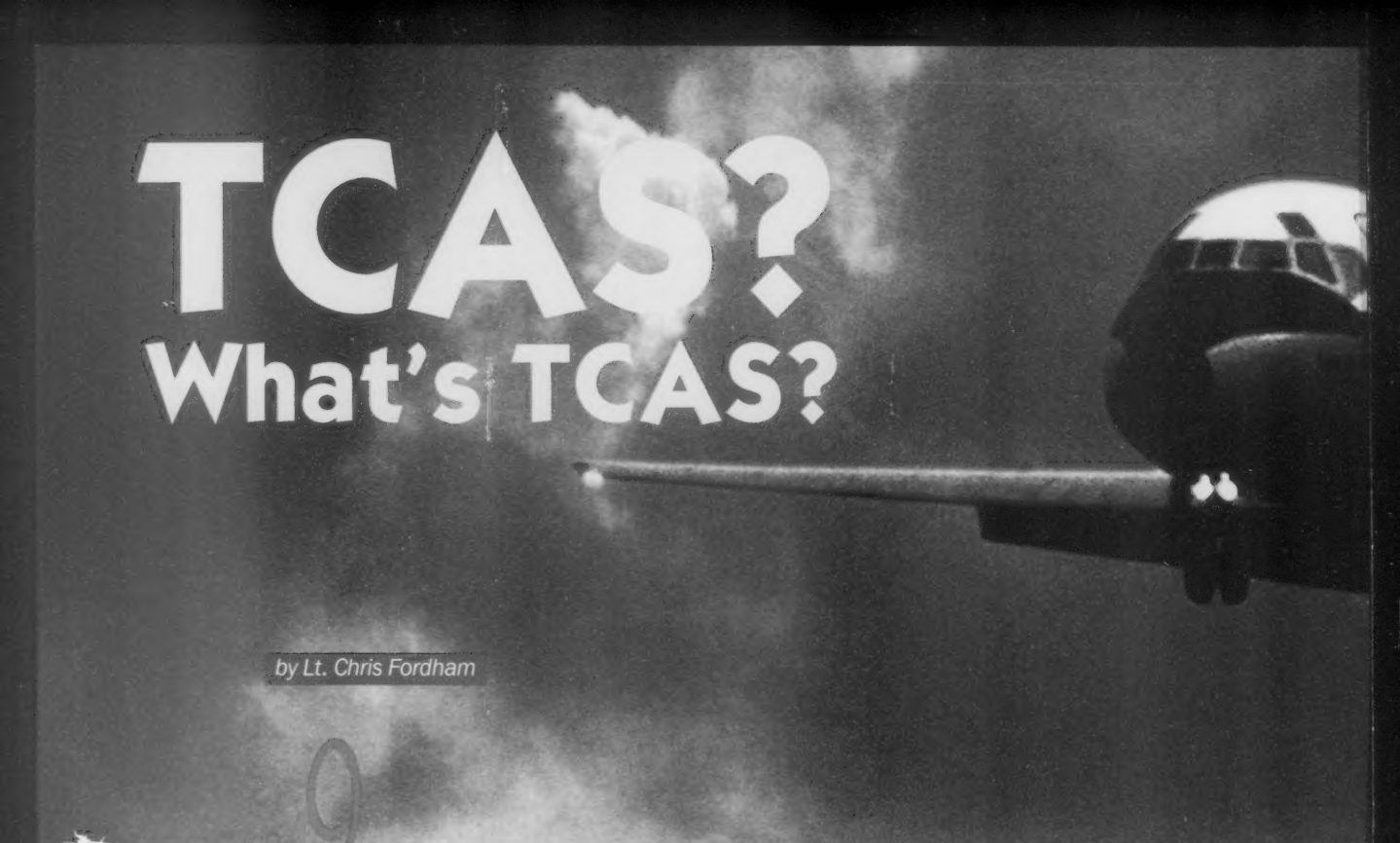
What had happened? Another Hornet had boltered and was hooked in at four miles. The controller had locked the Hornet in the hook by mistake. Because the controller had 404's address dialed in, 404 received 203's data-link information. In other words, 404 and 203 received solid needles all the way to 203's ball call.

This is one of those situations people always say can happen but seldom does. I broke some of the basic rules of flying a night Case III approach to the ship, because I had become unquestioningly confident in the SPN 46 carrier-landing system. I now fly every approach as if it was self-contained, and I keep the ILS up in HUD at least until pushover.

In the words of every FRS LSO to every replacement pilot, "Back yourself up and fly your numbers. Remember, everyone at the ship is trying to kill you." Always back yourself up and cross-check your systems, especially when you are feeling behind the jet. You will never know the information you are relying on is incorrect unless you have something to reference.

Lt. Rhodes flies with VFA-147.

TCAS? What's TCAS?



by Lt. Chris Fordham

It was a bright, sunny day in late spring, and the day's mission was multiple CAG lifts. The mission looked to be a "banker's hours" flight: 0700 brief for a 0900 launch, with 90-minute legs. The weather was forecast to be nearly CAVU.

Jacksonville to Oceana was a deadhead leg (no pax or cargo). The flight up was uneventful, until we started our descent. We were handed off to Approach, who approved our request for a visual approach to a full stop on Runway 05R. The approach path took us over some FCLPs at an outlying field, but we were way above pattern altitude. As we approached the air station, we heard a flight of Hornets behind and above us, checking in with Approach.

We switched off to tower at 10 miles and 5,000 feet and started configuring the aircraft for landing. We sidestepped to the right to avoid over-flying the FCLPs during our descent (it is hard to see aircraft directly below you in the C-9). As we passed through 3,000 feet, we picked up the flight of Hornets on our TCAS (the Traffic Alert and Collision Avoidance System). They were about three miles above us at our 5 o'clock and descending.

The Hornets requested the break for runway 05L and were cleared as such. We thought they would adjust their flight path to come in behind us, so we continued our long straight-in, keeping an eye on the TCAS. The Hornets had a different idea. They called us "in sight" and kept the throttles up and their noses down. In a minute, they were less than a mile behind us, leveling at 1,500 feet, with a high rate of closure. We were descending through 2,000 feet at this point, almost in final landing configuration. The TCAS started giving us traffic proximity alerts (called TAs), still an advisory at this point.

From the TCAS, we determined that the lead Hornet would fly right under our airplane, with little or no altitude separation, if we both maintained our current flight paths. The aircraft commander concentrated on flying the airplane, with the crew chief backing him up, while I looked for the lead Hornet at our 5 o'clock. The TAC gave a quick brief on when and how we would execute a missed approach, if necessary.

As I called visual on the lead Hornet, the TCAS started giving us a resolution advisory (RA), telling us to climb. An RA means if flight paths are not altered, a collision will occur in 30 seconds.

Our concern had suddenly increased dramatically. However, we knew the Hornet had us visually, and we wanted to avoid a missed approach, if possible. The aircraft commander applied power and leveled off, verifying that I had the Hornet in sight and that we had altitude separation. Satisfied with my separation calls, he said he was level and was slowing. Within a few seconds, the Hornet had passed under us, moving right to left, and the TCAS ceased giving alerts. We flew a visual approach and made an uneventful landing. After we had shut down, the aircraft commander asked me if I had been comfortable with his actions, which I had, based on the weather, the fact that I could see the Hornet, and his statements about his intentions.

If the weather had been less favorable or if I hadn't been able to verify visual separation, we would have been forced to go around due to the TCAS resolution advisory. No big deal, but if the tower had vectored the Hornets behind and around us, the TCAS would not have been tripped at all. Also, the TCAS audio alert is extremely loud. Had there been any passengers on board, they would easily have heard the RA blaring, "Climb, climb!" in the cabin. Scaring the fleet CINC is high on our list of "avoid" items.

After we had shut down, we walked in to ATC and talked with the controllers. They didn't know we were equipped with TCAS, which explained why they had cleared the Hornets in for the break right behind us. They apologized and understood our concern about the way events had unfolded.

The Hornet pilots did nothing wrong. They were cleared in for the break, had us visually on a VFR day (an easy target), and probably never heard of TCAS. On behalf of VR pilots, I'd ask our TACAIR brethren to give all military-transport aircraft the same separation that they give civilian aircraft in the future.

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Lt. Fordham flies C-9B and DC-9 aircraft with VR-58.

VP-62

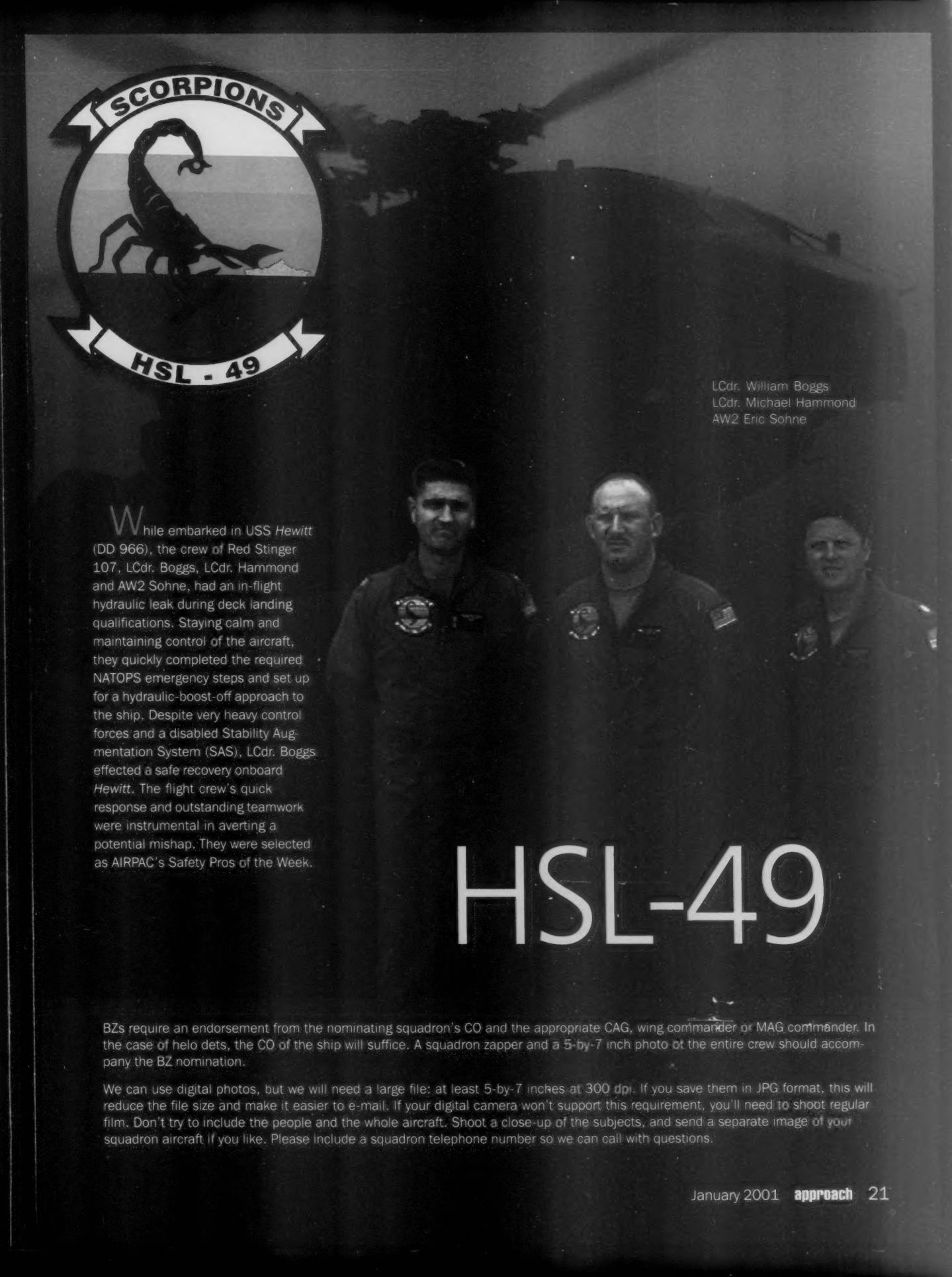
During the initial descent from 17,000 feet for approach into NAS Jacksonville, Lt. Willower (PPC) and his P-3 crew disconnected the autopilot and leveled at 12,000 feet. It was immediately apparent the aircraft's elevator trim was binding and appeared to be stuck in a cruise configuration (approximately 2 units nose down). This resulted in an extreme nose-down condition, requiring significant nose-up control inputs to maintain level flight. The crew made sure the autopilot was disengaged and tried to free the trim wheel.

During a descent to 3,000 feet over the airfield, the crew declared an emergency and entered the terminal area. Following a slow flight check to determine how the aircraft would perform in the landing configuration, they decided to conduct an emergency, no-flap landing at NAS Cecil Field on runway 18 (which is 12,000 feet long). The nose-up force required at approach speed was estimated to be more than 75 pounds.

They flew a 10-mile, straight-in, visual approach and made a successful emergency landing. Postflight maintenance revealed a severely frayed elevator-trim cable in the port horizontal stabilizer. The cable was so frayed and tangled that it immobilized the elevator trim wheel.

Cdr. Mike Preas
LCdr. Scott Willower
LCdr. Mike Upton
AEC Fred Schultz
AE1 Mike Hopper

BRAVO Zulu



LCdr. William Boggs
LCdr. Michael Hammond
AW2 Eric Sohne

While embarked in USS *Hewitt* (DD 966), the crew of Red Stinger 107, LCdr. Boggs, LCdr. Hammond and AW2 Sohne, had an in-flight hydraulic leak during deck landing qualifications. Staying calm and maintaining control of the aircraft, they quickly completed the required NATOPS emergency steps and set up for a hydraulic-boost-off approach to the ship. Despite very heavy control forces and a disabled Stability Augmentation System (SAS), LCdr. Boggs effected a safe recovery onboard *Hewitt*. The flight crew's quick response and outstanding teamwork were instrumental in averting a potential mishap. They were selected as AIRPAC's Safety Pros of the Week.

HSL-49

BZs require an endorsement from the nominating squadron's CO and the appropriate CAG, wing commander or MAG commander. In the case of helo dets, the CO of the ship will suffice. A squadron zapper and a 5-by-7 inch photo of the entire crew should accompany the BZ nomination.

We can use digital photos, but we will need a large file: at least 5-by-7 inches at 300 dpi. If you save them in JPG format, this will reduce the file size and make it easier to e-mail. If your digital camera won't support this requirement, you'll need to shoot regular film. Don't try to include the people and the whole aircraft. Shoot a close-up of the subjects, and send a separate image of your squadron aircraft if you like. Please include a squadron telephone number so we can call with questions.

2 out of 3 Ain't Bad; 2 out of 4 Is Another Matter

by LCdr. Mike Glenlister

I always figured my big emergency in the P-3 would come on a flight with a huge crosswind, lousy vis, blowing snow, and one shot at an approach in Iceland. As it turns out, it came during banker's hours, on a pilot trainer at Willow Grove.

We were practicing GCAs. It was 100 degrees with about a 10-gusting-to-16-knot crosswind from the left, and seven miles visibility.

As we passed rotate speed following our second GCA, I saw the red overtemp light for the No. 1 engine light up and heard the engineer mutter something profane. At first, I thought he had pushed up the power lever too far and was upset with himself. I felt a violent swerve and saw nothing but grass in front of us. The pilot in the left seat rotated to keep from going off the side of the runway. The nose was 30 to 40 degrees off runway heading, and despite 3,500 feet remaining, there was no chance for us to abort.

The aft observer then came on the ICS: "Torch, torch number one." I cleared the FE to pull the No. 1 emergency-shutdown handle and took the controls. The aircraft continued to yaw left, despite both pilots putting in full right rudder. Once the engine feathered, we regained some directional control and cleaned up. There was rising terrain, and it seemed to take forever to accelerate and climb out.

I tried to contact tower, because we were about to fly into the midfield downwind pattern. Unfortunately, the presets are not the same in all our aircraft, and I wound up on Philadelphia approach. The third pilot sitting on the radar cabinet got the frequency in, and I declared an emergency, while the FE and pilot in the left seat began the emergency-shutdown checklist.

At 800 feet AGL, and about four items into the checklist, the fire-warning horn sounded for No. 2. The engineer announced the fire, and we shut down that engine. We didn't know it at the time, but a swirl-vane staightener bolt had been installed improperly; we suspect that the hot air was probably porting on the detection element.

I continued to fly, as the FE and pilot ran through the checklist. My first thought was, "Where's the runway?" A prolonged flight was not in our best interests, having lost two of the four engines. Tower asked us to climb to 2,500 feet for the delta pattern, but at 2,000 feet and barely climbing, we told them we were leveling off. I had the third pilot—a guy who had done two tours in P-3s and had been an instructor—get in the right seat. I swapped over to the left seat for the landing, because we train to do emergency landings from that seat, and because it has the nosewheel steering, which might come into play as the aircraft rolled out.

My heart was pounding, my mouth was dry, and my stomach was tight. It was boiling in the cockpit, because we had lost air conditioning when we shut down No. 2. We briefed the landing from NATOPS. The left crosswind would help stop us, since the nose would tend to weathercock and allow me to use more reverse on No. 3 and No. 4 while maintaining centerline. We decided we could not restart the engines, and that once we had been cleared to land, had the gear down, and were in position to make the runway, we could slow below 145 KIAS. We couldn't wave off once we slowed. A good aviator always has a plan B, but for the first time in my flying career, I didn't. Once we slowed, we were committed to plan A.

I felt a violent swerve and saw nothing but grass in front of us.

We landed on centerline, and I reversed with No. 3 and No. 4. Someone from the back prematurely said, "Nice job" on the ICS. Touching down isn't the tough part—stopping is. As soon as No. 4 was aft of the ground-start position, we drifted right. I brought No. 4 back up to ground start and used full reverse with No. 3. We decelerated to 100 KIAS by the 3-board, and I didn't touch the brakes until 80 KIAS. The fire trucks followed us as we rolled to the end and turned into the apron, with hot brakes on the port side.

Then the Monday-morning quarterbacking began. Because P-3s had landed with two engines only about five times in the past 15 years, we had lots to discuss. The first thing that had surprised me was how violent the swerve was when we lost No. 1. We did have a crosswind from the port side, and the No. 1 engine is the critical engine, but the real difference is that when we train for emergencies, we simulate a feathered propeller.

With no way to stay on the runway and abort, the pilot flying had done a great job keeping us out of the weeds by rotating even before I could call it. Once airborne, the plane yawed left. Were we below minimum controllable airspeed? Not according to the charts, but the charts do not account for the engine not being feathered. We certainly weren't maintaining directional control. You can counter this problem by reducing power on the opposite outboard engine, but we had rising terrain and no excess speed or climb rate, so in this case it didn't seem to be the right technique. The other downside of this yaw was the amount of sideslip drag it produced, which really hurt our ability to accelerate. Once the propeller was feathered, the drag reduced, and we could maintain directional control, as well as increase altitude and airspeed.

I'm not claiming that we had Hans and Franz at the controls, but neither of us are 98-pound weaklings. We were both stomping full right rudder, and the yoke was hard over. We had a lot of adrenaline going, and it was still tough to keep the rudder over. Engine-out work in a P-3 requires a lot of rudder, and pilots who aren't strong enough should spend some time at the squat rack.

Reversing with two engines out is different from when we simulate losing two engines. There is less drag on feathered engines than on engines at ground start, which causes more swerve than when we train. I have found this to be true on the three-engine landings as well. There is no way to change our training to compensate for this, but all pilots should be aware of it.

ACT worked. We reacted to the emergency just as we trained. One pilot flew, while the engineer and other pilot handled the malfunction. We didn't have much time to analyze and discuss the situation before coming up with a decision. Snap your fingers three times—that's how long it took for us to rotate, call a torch, pull the e-handle, and transfer control.

Autofeather was put on the plane for a purpose. There are times not to use it (for example, touch-and-goes), times when it is not prudent to use it (birds), but don't just write it off every time.

You probably won't read about another two-engine until your next tour. Then again, I didn't think I'd have to write about one until a war started.

Not a Big Deal—We Just Lost ...

by Lt. Joe Hoffmann

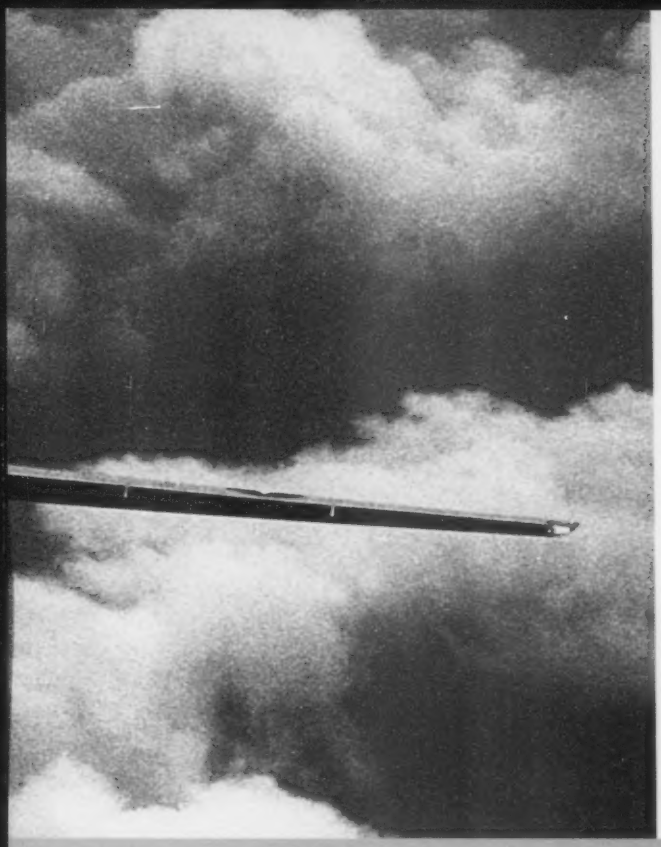
Hitting the road on a cross-country while in the E-2 FRS is a great way to knock out several syllabus events and have a good time in the process. With that in mind, five of us dedicated road hogs set out for an air show in Lakeland, Fla. While the pilots were enjoying the view up in the cockpit, the two NFO instructors were pulling a well-rehearsed good-cop-bad-cop routine on me in the Hummer's darkened Combat Information Center, interspersing hard questions with well-timed jokes.

About 15 minutes from our destination, we moles in the back felt the aircraft suddenly yaw violently to the right and then violently back to the left. The smiles quickly left our faces as I followed the instructors' example and reconnected my upper Koch fittings, locked my harness, and did what every good E-2 NFO does when something unusual happens in the aircraft: I prepared to get the hell out.

In reply to the mission commander's query, the CAPC stated that a sudden drop in horsepower in the right engine caused the violent yawing. The pilots determined that there was no reason for alarm. The aircraft remained controllable, and the loss of roughly 600 IHP on one engine was not uncommon in the older, 425-powered, E-2C group 0's. We let out a sigh of relief in the back, as the pilots began setting up for an impressive carrier break into Lakeland, which would surely convince the locals that UFOs did indeed exist.

We spent two days getting compliments on our break, answering questions such as, "Hey, do you guys fly this old thing for the Confederate Air Force?" and "Do you land helicopters on top of that saucer?" and otherwise having a lot of fun. Then it was time to go home. During his external preflight, however, the CAPC noticed something amiss with the right engine. While examining the intake, the CAPC found that a 2-inch-by-2-inch piece of inlet duct was missing. The reason for the loss of horsepower slowly dawned on us as we stared up at the intake. The aluminum inlet surface, which the missing piece had been part of, covers the bleed-air supply used for engine anti-icing. When needed, pressurized bleed air is drawn from the fourteenth stage of the compressor section, causing a 400 to 600 drop in IHP. In our case, the bleed-air leak caused by the hole in the bleed-air ducting explained the precipitous drop in IHP.

We congratulated each other on solving this systems puzzle. Before deciding what to do next, it slowly dawned on us that something else was wrong. You guessed it—if a piece of the inlet was missing, where did it go? Instantly,



the smallest guy in the crew (the mission commander) was being stuffed up the inlet to take a look. From his kicking and screaming, we seemed to have chosen the most claustrophobic member of the crew as well, but in time, he emerged from the inlet with the metal piece in hand. It had wedged itself flat against the stator vanes located mere inches from the compressor section and had been held in place by the suction of the engine.

We now realized that only by the narrowest margin had we been spared a disaster. At any time after the aircraft stopped yawing—particularly during our crowd-pleasing, high-G carrier break—the metal piece could have easily come loose and FODed the engine.

I learned a valuable lesson that day: don't explain away an aircraft problem using the best-case scenario. Something unusual happened to the bird on the way down and prudence should have dictated a more cautious arrival. At the very least, the loss of up to 600 IHP should have alerted us to a possible bleed-air problem.

By the way, I'm glad I'm too big to fit in an E-2 engine inlet.

Lt. Hoffmann flies with VAW-116.

On the Cat

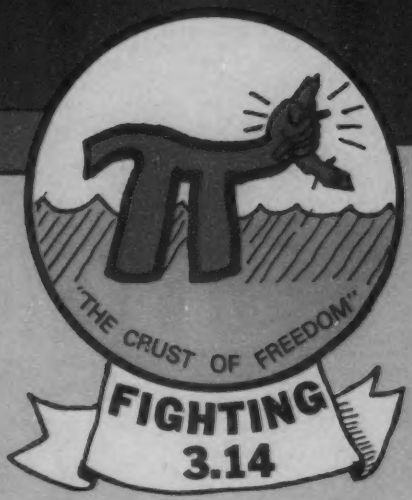
Coming Attractions for February

- Why the C-9 Told the P-3, "Fight's On!"
- It's Not Supposed To Work Like This
- PIREPs 'R' Us (or) I Give Myself Very Good Advice...

Classic BROWNSHOES IN ACTION COMIX

"THE KIND REAL AVIATORS LIKE"

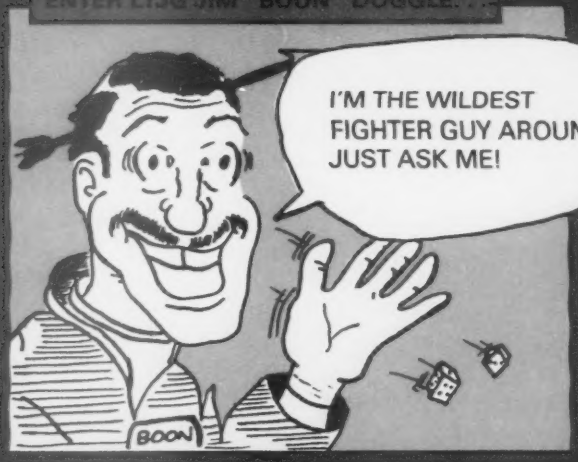
SQUADRON IN THE SPOTLIGHT



THE ORIGIN OF VF-3.14 IS SKETCHY, BUT IT IS GENERALLY ACCEPTED THAT IT STARTED IN 1946 AS DET 3.14 OF THE 103RD TRANSPORT WING. THEN KNOWN AS THE "DIGIT LIFTERS" FLYING THE C-47, THE SQUADRON ACHIEVED RECOGNITION FOR BEING "PRETTY GOOD FRIENDS" WITH SOME OF THE PILOTS WHO FLEW DURING THE BERLIN AIRLIFT. (RECORDS SHOW THAT THE 'DIGIT LIFTERS' WERE TASKED WITH THE AIRLIFT BUT COULDN'T MAKE IT DUE TO MISUSE OF OPTAR.)

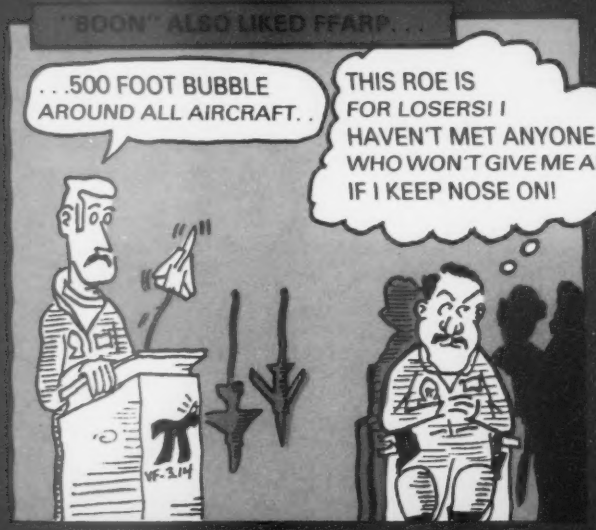
IN 1962, DURING THE TRANSITION TO C-130's, THE SQUADRON ACCIDENTLY RECEIVED F-8 "CRUSADERS" AND RATHER THAN CAUSE A LOT OF TROUBLE . . . THE CO, WITH THE AID OF HIS ENTERPRISING COFFEE MESS OFFICER (NEW "ZAPPERS" WITHIN 48 HOURS), REDESIGNATED THE SQUADRON VF-3.14 "THE FIGHTING PI'S" (SUBMITTED BY LT LANCE "DANGER-BOY" JONES, SQUADRON PAO)

ENTER LTJG JIM "BOON" DOGGLE. . .



AS A BOY "BOON" LIKED TO PROVE HE WAS WILD. . .

"BOON" ALSO LIKED FFARP. . .


. . .500 FOOT BUBBLE AROUND ALL AIRCRAFT. .
THIS ROE IS FOR LOSERS! I HAVEN'T MET ANYONE YET WHO WON'T GIVE ME ANGLES IF I KEEP NOSE ON!
VF-3.14

YEARS LATER ON A WEDNESDAY NIGHT. . .

IF YOU JO's THINK YOU'RE WILD YOU SHOULD'VE SEEN "BOON" DOGGLE! BEFORE HIS MID-AIR WE WERE AT THE CLUB AT AV SOUTH. . .WOO-WEE! THESE AIR FORCE BABES CAME IN AND. . .
OH NO, TRAPPED BY ANOTHER ONE OF THE SKIPPER'S "BOON" DOGGLE STORIES. . .

ROE...BRIEF IT...FLY IT...LIVE IT!